

Remarks/Arguments

This paper is filed in response to the Final Office action mailed 14 April 2003 and is filed in conjunction with a Request for Continued Examination and a petition and fees for a two month extension of time. Assignee again thanks the Examiner for his continued diligent review of the claims in the present case, but, respectfully traverses all of the Examiner's rejections, as set forth in the Final Office action of 14 April 2003 (hereinafter, the "4th OA"). In order to move this case along, Assignee has amended pending independent claims 1, 11, 26, 32, 82, 106, and 130 to more precisely identify how the user profile information is provided and utilized in the present invention. Assignee believes that such additional structure and functional language is sufficient to overcome all of the Examiner's outstanding rejections.

After entry of the foregoing amendments, claims 1, 5-8, 10-12, 16, 19, 21, 22, 24-28, 31-34, 37-38, 43-45, 47-48, 53-56, 73-77, 81-84, 105-108, 112, 117-121, 126, 128, 130, 131, and 133-135 remain pending and claims 2-4, 9, 13-15, 17, 18, 20, 23, 29, 30, 35, 36, 39-42, 46, 49-52, 57-72, 78-80, 85-104, 109-111, 113-116, 122-125, 127, 129, 132 and 136-141 have been cancelled. No new matter has been added to any of the pending claims.

Objection to the Drawings

The Examiner has objected to the drawings because of noted informalities. Assignee will submit formal drawings when the application has received a notice of allowance.

Claim Rejection – 35 U.S.C. § 103

In the 4th OA, the Examiner again has rejected claims 1, 11, 25, 27, 28, 32-34, 44, 46, 56, 59, 65, 67-70, 73-74, 130-132 and 136-138 under 35 U.S.C. 103(a) as being unpatentable over Becker (USPN 5,878,223) in view of Kramer et al. (USPN 6,327,574). More specifically, in the 4th OA, the Examiner has again stated that Becker, in view of Kramer, teaches all of the elements set forth in the above listed claims. Assignee appreciates that such rejections were issued prior to incorporation of the above amendments and that the Examiner's position vis-à-vis the pending claims has most likely changed in light of the present claim amendments. Nonetheless, herein the Assignee addresses the various rejections raised by the Examiner in the 4th OA, and while Assignee contends such rejections have been rendered moot by the above claim amendments, Assignee nonetheless respectfully traverse all such rejections. In traversing such rejections, Assignee again relies upon those arguments set forth in their response to the 3rd Office Action of 23 October 2002. In short, Assignee contends that both before and especially after entry of the above amendments, the presently pending claims are allowable over Becker in view of Kramer for the following reasons.

First, with respect to claim 1, Assignee contends that this claim is non-obvious over Becker in view of Kramer because neither reference, alone or together, sets forth a computer readable medium in which fields are included: a) for specifying an identification of a machine; b) for specifying an address of the machine; and c) for specifying user-profile information. In particular, Assignee contends that in the 4th OA, the Examiner has not identified where in Becker and Kramer each of these elements (i.e., a-c) are taught as being combined. Assignee contends that it is the combination of these elements of information in a computer readable medium that enable certain beneficial results to occur, such as the efficient targeting of user's with content,

regardless of how they are connected to a network at any given time, and without relying upon cookies or other device specific profile information.

In particular, Assignee contends that Becker simply does not teach combining “fields for specifying an identification of a machine,” “fields for specifying an address of a machine,” and “fields for specifying user profile information” in a computer readable medium. Becker teaches a “prediction table,” which, as asserted previously, Assignee contends does not contain user-profile information. However, for sake of argument, even if one were to consider the “prediction table” in Becker as providing user-profile information, Assignee contends it still does not provide and can not be reasonably interpreted as providing “fields for specifying an identification of a machine” or “fields for specifying an address of a machine.” Assignee is not aware of any identification by the Examiner that the prior art of record provides an address of a machine, or even an identification of a machine, as “user-profile” information. Similarly, Assignee is not aware of any section in Kramer which provides for the above limitations, namely, identifying the machine and an address associated therewith. Since the Examiner has not set forth a showing in the prior art to combine, let alone provide fields in a computer readable medium for elements a), b) and c), Assignee contends that the Examiner has not established a prima facie case of obviousness. As such, notwithstanding the present claim amendments, Assignee contends presently pending claim 1 is both novel and non-obvious.

Further, Assignee has also amended claim 1 to further specify how the user-profile information is stored in the computer readable medium. In particular, Assignee has amended claim 1 to specify that the user profile information is stored in a “donut” and that the donut utilizes a hierarchical attribute value pair data structure (“HAV”). Assignee contends that neither “donut” nor “HAV” are terms of art and that the inventors are their own lexicographers, as

permitted by the patent laws and regulations. As such, Assignee contends that the Examiner should have appreciated that one skilled in the art would have looked to the specification for the definitions of HAV and “donut.” Such an examination of the specification would have led one to appreciate that an HAV includes at least one attribute that is expressed as a value pair data structure that is independent of the hierarchical structure and that is also adapted for being shared with at least one other donut. Such, definition of HAV has now been expressly included in claim 1. As such, the Examiner’s arguments of “over breadth” are believe to now be rendered moot, as claim 1 clearly provides a specific definition of an HAV. Further, Assignee contends that an HAV, as defined herein and in the specification, is not covered by the structures set forth in Becker or Kramer.

In particular, an “HAV,” as set forth in the amended claim 1, is a “donut” (i.e., a data structure) wherein at least one value pair data structure (or attribute) in the data structure is independent of the structure and is adapted for being shared with at least one other donut. Assignee contend that Becker and Kramer simply do not set forth such a structure because the attributes are neither independent, nor are they separately adapted for being shared.

For example, with respect to Becker, Assignee understands the Examiner’s position as being that the probabilities in the “prediction tables” are essentially user-profile information. Even if one were to adopt such a position, Becker still can not reasonably be interpreted as providing that such probabilities are independent and adapted for being shared with other prediction tables, because Becker teaches the exactly opposite conclusion. For example, Becker’s Fig. 5A provides one example of a simple prediction table wherein each attribute sets forth a probability that a specific page (page “b”) will be selected after the current page (page “a”). It is inherently obvious that the total of all the probabilities of any page being selected after

page “a” must equal 100%. As such, the probability that page “b” is selected next inherently is dependent upon the change in the probability of any other of the available pages being selected next. So, for example, if page “c” was suddenly selected more frequently, then the probability of “c” would increase while the probability of “b” would necessarily decrease (assuming the only page options available were pages “b” and “c”). Thus, in Becker every attribute in the prediction table depends upon every other attribute for its value. An attribute can not be independent unless only a single option exists (in which case determining the probability of a next page being selected is a futile exercise).

Further, such dependencies among Becker probabilities impact their adaptability for being shared. For example, a probability that page “b” would be selected next from Web Site “a” clearly is not relevant when the user is on Web Site “c”, because the next page options from Web Sites “a” and “c” arguably will be different, if not different, then once again there is no need to have a separate prediction table and there is no need to share the prediction value of page “b” being selected next with another data structure, because changing “b” invariably must change all of the other prediction values in the table. Thus, Becker can not be read as teaching or providing for the use of independent probabilities in its prediction tables or the sharing of probabilities, because such an interpretation leads to illogical results.

Thus, using presently pending claim 1 provides that at least one value pair is independent of the hierarchical structure and is adapted for being shared with another hierarchical structure. In Becker, attributes depend upon the remainder of the hierarchical structure for their definition and their value, as such they can not be independent and Becker can not read upon claim 1.

Similarly, Assignee contend that Kramer also does not teach a “donut” with an independent attribute that may be shared with another “donut.” In particular, Kramer teaches a

hierarchy of values which depend upon sub-values in the same hierarchy for their meaning and value. For example, Figure 9 of Kramer provides an “illustration of a hierarchical attribute vector” for a given user (See Kramer, col. 4, line 13) wherein “each aggregated attribute in this vector 904 is associated with a selected plurality of base level attributes.” (Col. 22, lines 29 – 31). Such interdependencies dictate that if one were to modify the value of a given attribute, such as “x1,” then the value of dependent attributes, such as “a1” and “b1,” must also change because the attributes are not independent. In Kramer, any given attribute depends upon sub-attributes in the hierarchy for their meaning and value. As such, in Kramer attributes are not independent of the hierarchy and thus are not adapted for being shared with other hierarchies.

For the foregoing reasons, Assignee respectfully contends that Becker in view of Kramer does not read upon each and every element of claim 1 as amended above. Similarly, Assignee contends that Becker in view of Savitzky (USPN 6,012,083) also does not read upon the above invention claimed in claim 1, pre and/or post entry of the present amendments.

In particular, in the 4th OA, the Examiner again rejected claims 1-141 under 35 USC 103(a) as being unpatentable over Becker in view of Savitzky. In issuing this rejection, the Examiner relies upon Savitzky for “teaching a ‘feature calculator [that] generates a feature list for a transaction by scanning the data element’ (See 4th OA, page, 5, ¶ 8, lines 2-3) and that “‘additional features can be added at any time to the features calculator’s known features’ col. 6, lines 53-54 to highlight the data is independent of the calculated hierarchy.” (See 4th OA, page 5, ¶ 8, lines 3-5). As such, the Examiner, again, apparently contends that the “feature calculator” in Savitzky relates to user-profile information. Assignee respectfully contends that the feature calculator does not relate whatsoever to user-profile information. As shown immediately below,

every reference to the “feature calculator” is Savitzky is reproduced. None of these references refer, suggest, mention or even discuss user-profile information. These references are:

Resolver 24 includes an agent array 20, **a feature calculator 21**, a transaction queue 23, a match checker 25, an "act_on" processor 27, a handler 29 and an agent registrar 31. (Col. 5, lines 33-36, bold added).

When a transaction is received by resolver, it is first processed by **feature calculator 21**. **Feature calculator 21** generates the feature list for a transaction by scanning the data element (and possibly other elements) of the transaction to come up with a feature set. Examples of transaction features are shown in Table 2. The feature list is a "cache" of features of the transaction. By evaluating all the features once, the transaction data does not have to be scanned each time an agent needs to know if the transaction has certain characteristics. Of course, if a transaction is modified, the transaction might be reprocessed by **feature calculator 21** or an equivalent process. (Col. 6, lines 37-49, emphasis added)

Each transaction feature is represented in **feature calculator 21** by a snippet of code (a C or Perl function, or the like) so that additional features can be added at any time to the **feature calculator's** known set of features. For example, if a new graphics document format, XYZ, were to be developed after an agency were in place, a new feature snippet IS_ XYZ could be sent to the resolver (possibly using a transaction directed at a "feature installer" agent) for insertion to **feature calculator 21**. Then, when **feature calculator 21** scans a transaction's data, if it detects the XYZ format, the new snippet of code would give a return value of "true" and the feature calculator would add IS_ XYZ to the list of features for that transaction. As explained below, since agents each carry their own criteria, an agent programmed to act on or handle XYZ format documents can be easily installed into agency array 20. (Col. 6, lines 51-67, bold added).

Further, as shown by the underlined portion above, the feature calculator clearly generates a feature list. The feature list “is a ‘cache’ of features of the transaction” (col. 6, lines 42-43) it is not a cache of user-profile information. Examples of such transaction features are further shown in Table 2 in Savitzky, which is reproduced below:

TABLE 2

<u>Transaction Features</u>	
Feature	Description
is_response*	This transaction is a response to a request
is_request*	This transaction is a request for a document
is_agent_response*	This transaction is a response from an agent (agents can create transactions)
is_proxy_request*	This transaction is a request from/to a proxy
is_agent_request*	This transaction is a request from/to an agent
is_text	This transaction's data is a text document
is_html	This transaction's data is an HTML format document
is_image	This transaction's data is an image
is_local_source	This transaction is from a source within the agency
client_is_netscape	The client dealing with this transaction is a Netscape .TM. browser or compatible browser
is_file_request	This transaction is a request for a file
is_interform	This transaction is an interform (a document which combines a program with a form)

*These features exist by default for each transaction
(Col. 7, lines 1-21)

The above passages clearly show that in Savitzky information about a transaction is characterized by scanning the data elements of the transaction to generate a feature list. The feature list does not contain the data in the transaction, it contains an identification of the type of data provided in the transaction. Such types (as set forth in Table 2) include, for example, whether a transaction is a response, whether the transaction's data is formatted in HTML, as an image, as a text document, and the like. These transaction types are then used by a resolver to match an agent process (for example, an agent process designed to interpret HTML formatted data) to the transaction so that the transaction can be completed. Thus, the feature calculator generates a feature list that describes the type of transaction that has been requested. It does not describe, characterize or profile the underlying data and it does not describe a profile for a user

requesting the transaction. Thus, even under a broad interpretation, Savitzky should not be considered as teaching or relating to the collection, use, storage or the like of user-profile information.

Apparently, the Examiner in considering Savitzky as teaching user-profile information contends that the “feature list” is synonymous with the HAV of the present invention, and that the feature list provides features that are independent of the list. In supporting this proposition, the Examiner states that, ““additional features can be added at any time to the features calculator’s known features,” col. 6, lines 53-54 to highlight the data is independent of the calculated hierarchy.” (4th OA, pg. 5, ¶ 8, lines 3-5). In response to this characterization of Savitzky, Assignee notes that the immediate passage above clearly provides that features are added to the feature calculator and not to the feature list. Thus, even assuming for point of argument only that the feature list is comparable to a database, the above passage still does not support the Examiner’s conclusion that adding features to a features calculator “highlight [that] the data is independent of the calculated hierarchy” because the features are not added to the feature list. The features are added to the features calculator - the device which generates the features list. Thus, for purposes of determining the validity of claim 1, Assignee contends that it is irrelevant whether the features calculator may add new features. Claim 1 provides that at least one value pair in the HAV is independent, it does not provide that the computer readable medium may be accessed by a software application that may be configured with new features.

Additionally, the preceding passage from Savitzky does not support the Examiner’s position that in Savitzky the features on a features list are independent of the hierarchy, because of the simple fact that a list is not a hierarchy. In particular, Assignee contends that one skilled in the art would understand the “list” in Savitzky as being an “an item-by-item series of words or

numbers ... written or printed one after the other” (*Websters II New College Dictionary*, 1995, pg. 639) or perhaps, at best, a table of information. In contrast, a “hierarchy” is “a ranked or graded series” (*Websters II*, at pg. 522) or “a structure that has a predetermined ordering from high to low.” (*McGraw Hill Computer Desktop Encyclopedia*, 9th Edition, 2001, pg. 423).

Using common definitions, it is clear that a list is not synonymous with a hierarchy. Presently pending claim 1 clearly provides that the user-profile information is specified as a hierarchy. Savitzky clearly provides for generating a list. Therefore, Savitzky can not be read upon claim 1 or any of the other presently pending claims because of the simple fact that a list is not a hierarchy.

Therefore, Assignee contends that Becker in view of Savitzky does not teach each and every element of claim 1 because neither reference teaches user-profile information and neither teaches providing user-profile information in a hierarchical attribute data structure wherein at least one attribute in the structure is independent of the hierarchy and is adapted to being shared with another hierarchy.

With regards to presently pending claims 11, 25, 27, 28, 32-34, 44, 56, 73-74, and 130- (i.e., after entry of the present claim amendments) Assignee contends that for the above reasons each of these claims are also non-obvious and are patentable over Becker in view of Kramer and/or in view of Savitzky.

Additionally, in paragraph 9 of the 4th OA, the Examiner rejected dependent claims 2, 3, 12, 13, 18, 19, 21 and 24 under Savitzky (col. 6, lines 55-60) as teaching attributes of a user. After entry of the present claim amendments, claims 12, 19, 21, and 24 remain pending. Assignee respectfully traverses the Examiner’s rejection of these claims based upon the cited passage from Savitzky. In particular, Assignee notes that claim 12 essentially provides for

“specifying ...attributes of a user ...” In contrast, the cited passage from Savitzky does not relate to, mention or even suggest user profile information or even a user. In particular such passage provides “[f]or example, if a new graphics document format, XYZ, were to be developed after an agency were in place, a new feature snippet IS_ XYZ could be sent to the resolver (possibly using a transaction directed at a "feature installer" agent) for insertion to feature calculator 21.” (Savitzky, Col. 6, lines 55-60). Nowhere in this passage is there a mention or suggestion of user, user-profile, or even a profile in general. As such, Assignee contends that the Examiner has not met his burden of establishing a prima facie case of unpatentability. Further, claim 12 (pre and post entry of the present claim amendments) also provides that the “hierarchical relationships” between the attribute(s) are specified in the donut/hierarchical structure. Savitzky does not include this operation because features are stored in a features list, not a hierarchy. As such, there are no hierarchical relationships to specify in Savitzky.

Similarly, with respect to claim 19, this claim depends from claim 12, as such, the arguments set forth above also apply to it. Further, this claim provides that the method includes “querying the user in order to obtain the user-profile information.” There is no mention in Savitzky of querying a user. As such, Savitzky can not be read as teaching these additional elements.

With respect to claim 21, this claim has been amended to depend from claim 19, which in turn depends from claim 12. For the foregoing reasons, Assignee contend that this claim is also not taught by Savitzky and is patentable over the prior art of record.

With respect to claim 24, this claim provides that the user-profile information is used for selectively transmitting at least one survey question is to the user. Savitzky makes no reference,

mention or suggestion of sending survey questions to anyone, let alone to a user. As such, this claim is also patentable over the prior art of record.

In paragraph 10 of the 4th OA, the Examiner also relied upon Savitzky in rejecting claims 4 and 14. Since these claims have been cancelled in the present response, in order to reduce the time and expense associated with prosecuting patent claims, Assignees note that this rejection is now rendered moot.

In paragraph 11 of the 4th OA, the Examiner has rejected claims 5, 6, and 15-16 because “Savitzky teaches chat rooms or services, col. 6, lines 65-66.” Assignee again respectfully disagrees with the Examiner’s characterization of Savitzky. Nowhere in col. 6, lines 65-66 (or elsewhere in the reference) does Savitzky teach, mention or suggest a chat room or service. In particular, this section of Savitzky provides “since agents each carry their own criteria, an agent programmed to act on or handle XYZ format documents can be easily installed into agency array 20.” An “agency array” is not a chat room. An agency array is a listing of agents and the type of features to which they respond. Therefore, Assignee respectfully requests the Examiner to more fully explain why and how he interprets an “agency array” to be equivalent to a “chat room of users.” Absent such a description, Assignee contend claims 5,6, and 16 (claim 15 having been cancelled for purpose unrelated to patentability) are patentable over the prior art of record.

In paragraph 12 of the 4th OA, the Examiner has rejected claims 7 and 17 in view of Savitzky, col. 6, lines 57-59. Claim 17 has been cancelled for purposes unrelated to its patentability. Assignee contends that the portion of Savitzky relied upon by the Examiner does not teach a directory for routing content. Ironically, this passage from Savitzky is the same passage the Examiner relied upon previously in stating that Savitzky teaches a HAV of user-profile information, which Assignee respectfully traverses. Now, the Examiner contends that the

“features list” is also a directory. Yet, Savitzky does not mention user-profiles nor directories in the cited passage. As such, Assignee respectfully request the Examiner to explain how the cited passage from Savitzky teaches both a user-profile and a directory. Absent such an explanation, Assignee contends claim 7 is patentable over the prior art of record.

With regards to paragraph 13 of the 4th OA, the Examiner has rejected claims 8, 20, 23, 26, 31, 37, 45, 54, 57, 58, 61-63, 66, 71, 72 75, 76, 94-95, 97, 11, 120, and 135 under Becker because “Becker teaches transmitting selected information, col. 5, lines 50-53.” With respect to these claims, Assignee notes that claims 20, 23, 57, 58, 61-63, 66, 71, 72, 94-95, and 97 have been cancelled for purposes unrelated to patentability. Also, Assignee notes that each of these claims include elements and limitations previously discussed above with respect to the 103(a) rejections under Becker in view of Kramer and/or Becker in view of Savitzky. As such, Assignee contends that each of these claims is patentable over the prior art of record as being dependent from patentable independent claims. Assignee also contend that additional bases for patentability exist for many if not all of these claims, such additional bases are not necessary to set forth at this time in light of the above discussed distinctions, but, Assignee reserves the right to assert such further distinctions in the future, as necessary.

In paragraph 14 of the 4th OA, the Examiner has rejected claims 22, 29, 30, 35, 36, 38-43, 47, 48-53, 55, 77-93, 96, 98-117, 119, 121-129, 133-134 and 139-141 because “Savitzky teaches monitoring the activities of a user, col. 11, lines 28-29.” In regards to this passage from Savitzky, Assignee notes that the cited passage refers to an “interest agent” which “intercepts activity which indicates a user’s interest.” Further, the interest agent performs this interception by “scan[ning] the transaction to get a sense of what type of documents the user is retrieving and then independently obtains those documents ...” (Savitzky, col. 11, lines 64-67). As such, in

Savitzky the process of “indicating a user’s interest” involves scanning the details of transactions and then providing documents that match such scanned details. There is no mention in Savitzky of user-profile information or updating user-profile information. Instead, Savitzky is geared towards monitoring transactions on a real-time basis and does not accommodate nor provide for creating a user-profile and or updates thereto. As such, one can appreciate that using Savitzky the level of filtering or matching of content to users is much less than that which uses currently updated user-profile information to determine content to provide to a particular user. Therefore, while Savitzky provides for the monitoring of transactional interests, it does not provide for updating user-profile information, as set forth presently pending claim 22.

With regards to claims 29, 30, 35, 36, 38-43, 47 - 53, 55, 77-93, 96, 98 – 117, 119, 121 – 129, 133 – 134 and 139 – 141 Assignee notes that similar arguments to those set forth with respect to claim 22 may also be applicable. Assignee further notes that the scope of each of these claims may vary significantly from each other, as such, Assignee contends that the Examiner’s rejection of these claims also fails to set forth a prima facie case of obviousness because the cited passage (Savitzky, col. 11, lines 28-29) clearly does not relate to the subject matter claimed in many of these claims. Therefore, for all of the preceding reasons Assignee contends each of these claims are patentable over the prior art of record and respectfully requests the Examiner to issue a notice of allowance for such claims.

In paragraphs 15 – 18, the Examiner has responded to Assignees previous arguments as to why the subject matter of the presently pending claims is patentable over the prior art of record. Assignee contends the present claim amendments and remarks have answered the Examiner’s questions as to the breadth and scope of the presently pending claims. Specifically, the present claim amendments have defined an hierarchical attribute value pair data structure to

be a structure in which at least one value pair (or attribute) is independent of the structure and is adapted for being shared with at least one other donut. Applicant contends that such a structure is definite and is novel and non-obvious. It is definite because an HAV does not cover any and every hierarchy – it covers those with at least one attribute that is independent of the structure and adapted for being shared. Since the Examiner has not shown any prior art references in which a hierarchical structure has an attribute (i.e., a value pair having a definition and a value) that is independent of the hierarchy, applicant contends the Examiner has failed to set forth a prima facie case of obviousness. Assignee respectfully requests the Examiner to issue a notice of allowance for each and every pending claim, after entry of the present claim amendments.

Closing Remarks


The Assignee thanks the Examiner for his review of the application and consideration of these remarks. The Assignee respectfully submits no new matter has been added by this response. Accordingly, and for at least the reasons given above, the Assignee respectfully submits all pending claims are in condition for allowance and solicits the issuance of a notice of allowance.

This response is filed with a Petition for a two-month extension of time and associated fees. The Assignee believes no additional petitions or fees are required. However, should any additional Petitions or fees be associated with this response and required, please consider this a request therefore and authorization to charge Deposit Account 04-1415 as necessary.

In the event the Examiner has questions or comments and believes a telephone conversation would expedite a resolution, the Assignee invites the Examiner to contact the undersigned attorney at (303) 260-6362.

Dated this 10 day of September, 2003.

Respectfully submitted,


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